

REMARKS

Summary of Office Action

Claims 1-3 are pending, claims 4-10 having been withdrawn in response to a restriction requirement.

Claims 1-3 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-3 also stand rejected under 35 U.S.C. §102(b), as being clearly anticipated by Komori, et al. (U.S. Patent 5,235,200).

Summary of Applicant's Response

Applicant has amend claims 1 and 2 and added new claims 11-25 to more particularly point out and distinctly claim the subject matter of the invention. Applicant respectfully submits that the amendment to claim 1 moots the rejection under 35 U.S.C. § 112. Applicant respectfully traverses the rejections of claims 1-3 over the cited art.

Response to Rejections Under
35 U.S.C. §112, 2nd paragraph

Applicant has amended claim 1, lines to delete references to a layer of "type-2" polysilicon. Claim 1 now recites "a layer of polysilicon interconnecting the transistors in a row" Applicant respectfully submits that the amendment overcomes this ground of rejection.

Response to Rejections
Under 35 U.S.C. §102(b)

Claims 1-3 stand rejected as being anticipated by Komori. Applicant respectfully traverses the rejection of claims 1-3 over Komori.

At paragraph 4 of the Office action, claims 1-3 are rejected as being anticipated by Komori, which allegedly shows:

"a row of transistors [Q] each having a stack gate structure [18,22] and a drain [24]; a layer of polysilicon [22] interconnecting the transistors in a row; and a source region [24] adjacent to the layer of the polysilicon [22] having a contact [38] and an N-type junction [37] extending across the source region that provides a planar electrical path between the drains [24] of the transistors and the contact [38]. It is inherent that the planar electrical path reduces the resistance of the source region. (Paragraph 4 of the Office Action)"

A reference anticipates a claim only if the reference discloses each and every limitation found in the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicant respectfully submits that Komori fails to disclose each and every element as set forth in the claim. Specifically, Komori does not show that the source region includes areas in which a p-type semiconductor has been over-doped to form an n-type semiconductor as required by the present claims. For example, amended claim 1 recites:

" a source region comprising an N-type region of the substrate adjacent to the row of transistors and having a contact coupled thereto, wherein the N-type junction includes a plurality of P-type regions that have been over-doped to form N-type regions,

and wherein the N-type junction extends across the source region to provide a planar electrical path between the drains of the transistors and the contact, thereby reducing resistance of the source region."

And new claim 11 recites a limitation including:

"... the second n-type region including p-type dopants at a concentration corresponding to the p-type region and n-type dopants at a concentration sufficient to over compensate for the p-type dopants."

Moreover, applicant respectfully submits that Komori does not disclose that an "N-type junction extends across the source region to provide a planar electrical path" as recited in claim 1. Rather, Komori discloses providing a buried tungsten electrode to conduct source current from the memory cell transistors. (See reference 38(SL) in Figures 2 and 3C, and the description at column 6, lines 34-36).

Applicant respectfully submits that new claims 11-25 find support throughout the specification and drawings. No new matter is added by the amendment. Moreover, independent claims 11 and 20 recite features analogous to the features found in claim 1 and are allowable over Komori for at least the reasons provided above.

Accordingly, applicant respectfully submits that the present claims, including claims 1-3 and 11-20, distinguish from and are, therefore, patentable over the Komori reference.

Conclusion

In light of the arguments presented hereinabove, Applicant respectfully submits that the instant claims distinguish over the cited references. Accordingly, Applicant respectfully submits that the instant application is now in condition for allowance and should be passed to issue.

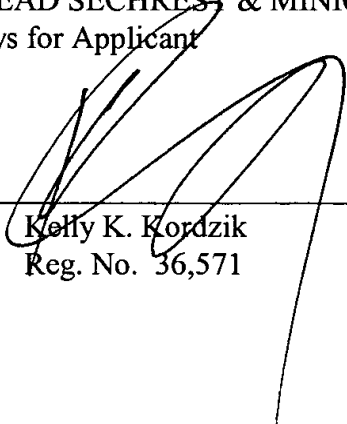
With the addition of no new claims in excess of those already paid for, no additional filing fees are due. However, the Patent and Trademark Office is hereby authorized to charge

any fees or credit any overpayment to Deposit Account Number 23-2426 of WINSTEAD SECHREST & MINICK P.C.

If the Examiner has any questions or comments concerning this paper or the present application in general, the Examiner is invited to call the undersigned at (214) 745-5421.

Respectfully submitted,
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